



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

of which inquiry he has no doubt will form, at some future time, an acceptable contribution to the records of the Statistical Society.

In conclusion, the author is anxious to guard against a possible misconception. It is not intended to represent all the conclusions which have been arrived at, as entirely new or unexpected, but simply to deduce from facts carefully observed and registered, results altogether independent of the previous labours of others in the same direction. Such independent labours furnish the best confirmation or refutation of the statements of others, at the same time that they afford a fair chance of arriving at novel and unexpected results.

Account of a Report of M. Villemain, the French Minister of Public Instruction, on the State of Superior Education in France. By JAMES HEYWOOD, Esq., F.R.S.

[Read before the Statistical Section of the British Association, 21st August, 1843.]

IN March, 1843, M. Villemain presented to the King of the French a report on secondary education, that is, on superior school education, and, at his suggestion, the King was pleased to direct that a general report on the public and private establishments of secondary instruction should be prepared every five years, with an account of the state of that class of instruction during the quinquennial period then elapsed; and His Majesty further declared his pleasure that the report should be published and distributed to the members of the Chamber of Peers and of the Chamber of Deputies.

The Government in France possesses control over all the education of the country, with the exception of the colleges for the education of the clergy, which are termed seminaries, and their subordinate institutions. The primary or elementary schools of France, the royal colleges or public schools, the normal school for the education of schoolmasters, the parish colleges or schools, the schools called institutions, and the smaller boarding-schools or "pensions," are subject to Government inspection, and many of them receive aid from the public funds in case of need. The higher academies, which are called in England universities, are also subject to the power of the Government; but the word "university" has been extended in France from its original signification to include the whole educational system, under the direction of the Government.

The Minister of Public Instruction is, *ex-officio*, the Grand Master of the University in France, and the improvements which are made from time to time in the educational plans of the Government are to be traced in a great measure to the talent and learning of this commanding officer. The formation of the French University, on its vast scale of extent, is due to M. de Fontanes, who was its first grand master, in 1808, under the reign of Napoleon.

Secondary instruction includes the study of the ancient languages, of literature (*lettres*), and of the mathematical and physical sciences. Its object is to prepare pupils for the learned professions, for great intellectual exertion, and for the higher offices of life generally. The youth who avail themselves of a superior kind of education give up to instruction a portion of life which, in other classes of society, is usually devoted to profitable labour; and the expense of this superior school education

is defrayed either by private individuals, such as the parents of the boys, or from the liberality of the state or the municipalities.

The number of pupils who receive superior instruction is necessarily limited, but it is increasing in France; and M. Villemain rightly considers it of importance that superior education should be maintained and extended in a just proportion, according to the requirements of the country.

In the highest department of secondary instruction there are at the present time 46 public schools or royal colleges in France; some of them are sufficiently rich very nearly to support themselves, and these only require slight pecuniary assistance from Government; others are supported in a great degree by extraneous funds, such as grants from Government or from the municipality in which they are situated.

Five of the royal colleges are in Paris, and of these the most amply endowed and the largest is the college of Louis the Great. On the 1st December, 1842, this college contained 522 resident pupils, and 553 day-boys, making a total of 1,075 boys receiving education in the institution; it is also the largest public school in France. The other four Parisian colleges had each from 768 to 996 pupils, and in the colleges of the principal provincial towns of France the number of pupils varied from 111 to 661 at the time of the census.

The number of boarders in the 46 colleges is 8,030, and of day-boys 10,667: making a total number of 18,697 receiving superior instruction in royal colleges in December 1842. Many of the pupils receive considerable assistance towards defraying the expense of their education from the state or from other funds, but the majority pay their own schooling expenses. Considered in this point of view, the 18,697 scholars may be thus subdivided:—

Scholars receiving assistance	{	1,691 from state funds.
		43 from departmental funds.
		510 from parish funds.
		6 from special foundation.
		<hr/> 2,250
Boarders maintained at the expense of their families	.	5,790
Day-boys coming from home	.	5,544
Day-boys belonging to institutions or "pensions"	.	5,123
		<hr/> 18,697

Ancient languages are described by M. Villemain, in his report (p. 18), as forming the dominant study in the royal colleges, and he considers that study particularly well adapted to exercise and ripen the mental powers. More attention has of late years been given to instruction in history in these colleges, and progressive courses of mathematical learning are maintained, some being preparatory and others complete and extended. With the study of classics modern languages are united, and this latter study has recently obtained a more regular form in the business of the schools.

The system of study is described as resulting from the most valuable customs of former ages, with the experience of recent times, and it is thus considered to be the best adapted for a general preparation for all the learned professions, and for the formation of the mind and heart of man.

"The religious instruction, confided to the almoner, is addressed to three different ranks of students, distinguished according to age and the amount of their acquired knowledge. The youngest, and those who have not made their first communion, attend two lessons weekly to receive explanations of the diocesan catechism. The next division, consisting of two classes of more advanced students, receive a weekly lesson in the principles of religion, and upon the truth and authenticity of the sacred books. A third division, composed of the students of the higher classes, receive weekly instruction in Christianity considered in regard to its dogmas, its moral principles, its worship, and its written monuments. This instruction is a frequent subject of essays, which, in several colleges, are encouraged by prizes.

"These different lessons are independent of the instruction which forms part of the religious exercises, and those which the almoner gives on all Sundays and holidays to the whole of the students assembled.

"In the establishments which contain pupils belonging to Christian communions other than the Roman Catholic, analogous arrangements are made for the boys to receive instruction according to the religion of their parents.

"Throughout the whole system of instruction a moral tone prevails, as well in the subjects of the principal studies, as in the rigid selection of authorized texts, and the care used on all occasions by the masters to remind their pupils of what they owe to God, to their parents, to the king, and to their country."

The pupils of each different class in the Royal Colleges are as follows :—

Elementary	3,084
Grammar (6, 5, 4)	6,385
Superior (3, 2, rhetoric)	6,239
Sciences (elementary mathematics, special mathematics, physics)	2,699
Preparatory to the special schools	365
Preparatory to commercial and industrial professions	340
Superior primary, annexed to some of the royal colleges	227
Superior elementary ditto	214
	<hr/>
	19,553

This total somewhat exceeds that already given as the total of the pupils in the royal colleges ; some belonging at one and the same time, to different sections of instruction.

The following are the several classes in the Royal Colleges, and the distribution of studies among them :—

The class of *Special Mathematics*, like all the other classes down to that designated as the *Third*, inclusive, devotes the time of 1 lesson weekly, besides that occupied in the daily offices of religion, to religious instruction by means of oral discourses upon the dogmas of Christianity, its moral principles, its worship, and its written monuments, accompanied by "redactions;" it has 6 lessons weekly in special mathematics, comprising arithmetic, elementary geometry, algebra, rectilinear trigonometry, and the use of the tables of sines, statics demonstrated synthetically, analytical geometry, and the first elements of descriptive geometry ; 3 lessons in physics, carrying out the ideas conveyed in the course of the first year, and extending to heat, electricity, latent electricity, magnetism, electro-dynamics, electro-magnetism, electro-chemistry, thermo-electrical phenomena, molecular action, acoustics,

optics ; 1 lesson in chemistry ; and 3 lessons in drawing, from studies and heads, engraved or in relief, and after nature ; making a total of 15 lessons weekly. The courses in mathematical, physical, and natural science are not marked by any prescribed use of books, but by a fixed programme. The maximum age of admission to this class, for those intending to enter the general competition among the colleges of Paris and Versailles, is 19.

The class of *Elementary Mathematics*, with 1 lesson weekly in religious instruction, has 3 lessons in French rhetoric, comprising the elements of morals and of history, with attempts in translation and style ; 5 lessons in elementary mathematics, comprising arithmetic, geometry, rectilinear trigonometry, and the first notions of algebra ; 2 lessons in physics and elementary chemistry ; 1 preliminary lesson in natural history, comprising the animal, the vegetable, and the mineral kingdoms ; and 3 lessons in drawing, as in the preceding class ; making a total of 15 lessons weekly. The maximum age of admission, with a view to the general competition, is 18.

The class of *Philosophy*, together with 1 weekly lesson in religion, receives 5 in philosophy, comprising psychology, logic, morals and theodicy, and the history of philosophy, with dissertations in Latin and in French ; 3 lessons in mathematics, comprising arithmetic, geometry, and some ideas of algebra ; 2 lessons in the elementary ideas of physics and chemistry ; 1 lesson in natural history, comprising the preliminary notions with regard to the animal, vegetable, and mineral kingdoms ; and 3 lessons in drawing, as above, together with landscape ; making a total of 15 lessons weekly ; while the maximum age of admission to each class is 18. The books prescribed to this class by the Royal Council are, select works of Plato, Aristotle, Cicero, Bacon, Descartes, Bossuet, Fenelon, Malebranche, Arnauld, Buffier, Locke, Leibnitz, Clarke, Euler, Ferguson, and Reid.

The class of *Rhetoric*, with 1 lesson weekly in religion, has 8 lessons in Latin discourses, French discourses, Latin verse, Latin translation, Greek translation, ideas on rhetoric and literary history, and exercises of the memory ; 2 lessons on the history of France down to 1792, with the geography of this portion of history ; 1 lesson of preparatory instruction in arithmetic to square roots, and in geometry to spherical triangles ; 2 lessons in living languages,—English, German, Italian, or Spanish ; and 3 lessons in drawing and landscape, as above ; the total number of lessons weekly being 17, and the maximum age at which competitors for prizes can enter, 17 and 18. The books prescribed to this class are, the Acts of the Apostles, Treatises of Rhetoric or Literature, Cicero, Tacitus, Demosthenes, Eschines, Buffon, Fenelon, Bossuet, Flechier, Labruyère, Pascal, *Siècle de Louis XIV.*, Horace, Virgil, Lucan, Homer, Pindar, Theocritus, Sophocles, Corneille, Selections from Racine and Molière, Lafontaine's Fables, Abstract of the History of France.

The class designated the *Second*, with 1 lesson weekly in religion, has 8 in Latin themes, Latin translation, Latin verses, Greek translation, Greek themes, and exercises of the memory ; 2 lessons in modern history, and its geography ; 1 lesson in mathematics, 2 in living languages, like the preceding class, and 3 in drawing ; the total number of lessons weekly being 17, and the maximum age for competitors to enter, 16. The books prescribed are, the Acts of the Apostles, the

Latin Grammar, Cicero, Tacitus, Pliny the Younger, Virgil, Horace. Demosthenes, Plato, Homer, Euripides, Boileau, J. B. Rousseau, Corneille, Montesquieu, Bossuet, Fenelon, and Abstract of Modern History.

The class designated as the *Third*, with 1 lesson weekly in religion, has 8 lessons in grammatical and literary instruction, like the preceding; 2 lessons in the history of the middle ages, and their geography; 1 lesson in mathematics, 2 in living languages, and 3 in drawing, as above; the total number weekly being 17, and the maximum age for competitors to enter, 15. The books prescribed are, the Gospels, Latin Grammar, Latin Synonyms, Treatise on Latin Versification, Sallust, Terence, Cicero, Virgil, Plutarch, Xenophon, the Greek Fathers, Homer, Vertot, Massillon, Boileau, and Abstract of the History of the Middle Ages.

The *Fourth* class, with 2 oral lessons weekly in the catechism, the foundations of natural religion, and the truth and authenticity of the sacred books, has 8 grammatical and literary lessons like the above, as also in Latin prosody, and in Greek, Latin, and French; 2 lessons in Roman history, and its geography; 2 elementary lessons in the above mentioned living languages, and 3 in drawing; the total number of lessons weekly being 17, and the maximum age of entry for competitors, 14. The books prescribed are, the Latin Testament, French, Latin, and Greek Grammars, Latin and Greek Dictionaries, Gradus ad Parnassum, Latin Prosody, Greek Roots, Cæsar, Quintus Curtius, Virgil, Ovid, Lucian, Plutarch, Isocrates, Voltaire's History of Charles XII., Fenelon, Racine, and Abstract of Roman History.

The *Fifth* class, with 2 oral lessons on the catechism, as above, has 10 in grammatical and literary instruction, 1 in ancient history (the second part) and its geography, 3 in drawing from engravings, and 1 in vocal music; the total number of lessons weekly being 17, and the maximum age of entry for competitors, 13. The books prescribed are, the Latin Testament, Grammars and Dictionaries as above, Greek Roots, Selectæ, Justin, Ovid, Lucian, the Cyropædia, Fenelon, Racine, Ancient Geography, and Abstract of Ancient History.

The *Sixth* class, with 2 lessons weekly in the diocesan catechism, and preparation for the first communion, has 10 in grammatical and literary exercises as above, 1 in ancient history (the first part) with its geography, 3 in writing, and 2 in vocal music; the total number of lessons being 17, and the maximum age of entry for competitors, 12. The books prescribed are, the Gospels, the Grammars and Dictionaries above mentioned, Selectæ, Cornelius Nepos, Fables of Phædrus and Æsop, Elian, Manners of the Israelites, Fables of Lafontaine, Fenelon, Elementary Geography, and Abstract of Ancient History.

The *Elementary* classes, with 2 lessons of religious instruction, like the Sixth, have 9 in grammatical and literary instruction, grammatical and logical analysis, and exercises of the memory, 1 in sacred history and its geography, 1 in the elements of arithmetic, 3 in writing, and 2 in vocal music; the total number of lessons weekly being 18; and the books prescribed, French and Latin grammars and dictionaries, Epitome Historiæ Sacræ et Græcæ, De Viris Illustribus, Appendix, and the Fables of Fenelon and Lafontaine.

It will be gathered from this outline, that the French colleges of highest instruction are rather schools of the first class than anything

resembling the colleges of Oxford and Cambridge, whatever resemblances may be found between the former, and the colleges under the University of London.

Much less of Greek tragedy appears to be read in France than in England; the names of Euripides, Sophocles, and Æschines being inserted in the midst of a multitude of other subjects, such as the historical books of the Greek Testament, many French works of eminence, and the ordinary Greek and Latin classics.

Part of the philosophical year, it will be seen, is devoted to the study of mathematics, physics, chemistry, and natural history. This variety of subjects, M. Villemain observes, does not allow a profound study of each of them, but it affords some knowledge of all, sufficient to rouse the natural powers of the mind in acquiring information, and to form that amount of general information which is suitable for the enlightened men of our time.

Pupils intended for the polytechnic school, and others who desire a more extended school education, will find that the second year after that of philosophy is devoted entirely to mathematics and physics, and that they may prepare for the degree of bachelor of letters, whilst they still remain at the royal college.

A shorter course of instruction, equally professing to form correct habits of thought and a good style, is also provided, which will serve to impress on less cultivated minds some essential ideas, which they may work out at a later period.

M. Villemain then remarks, "It is in this manner that the establishments of the state present an intellectual, a moral, and a literary education, which constituted all the liberty of a former time, and which ought to form in our own days useful citizens, devoted to a constitutional monarchy."

This system of instruction is applied in various ways, but it has only one object: it is beneficially allied with all the special studies of science, and is connected with the heart and centre of French society, of whose internal vigour it affords a constant renewal in all the intellectual works, in all the public duties, and in all the generous offices which confer honour on that society.

Emulation is much encouraged in the royal colleges, and a constant watchfulness over the conduct of the pupils lessens the necessity for punishments, which are rarely inflicted, and are generally slight. In Paris, prizes are awarded to pupils after a general competition among the boys belonging to several colleges, and generally the names of successful candidates for prizes are inscribed in honourable lists, and the remarks on their merits are read in public.

The whole Government system of collegiate and school education is termed in France, at the present day, the *university*, and it includes the academies for the older students, the royal colleges and other institutions for secondary education, as well as the primary and elementary schools. The university acts on the subordinate parts by a careful selection of the lists of works recommended for study, by the vigilance of the rectors, and the constant repetition of general inspection. Numerous skilful and attached professors devote their talents to the proper working of the university; and this great educational institution is still more remarkable for the purity of its principles and manners: indeed, moral

influence and good discipline characterize its operations throughout all its departments, and large schools of boys are kept in excellent order.

Secondary schools in France are considered as parochial colleges (*colléges communaux*) when they have been formed by parishes or are kept by individuals, for instruction in the Latin and French languages, the first principles of geography, of history, and of mathematics. There are 312 of these schools in France, all subject to Government inspection, and directed by officers nominated by the same public authority. Some members of the municipal council and other individuals of known respectability form the board of management, and the suggestion of every proposition advantageous to the institution belongs to them.

For several years the grants of the parishes for the support of these colleges have sensibly increased, and the means of enlarging the plan of instruction are thus provided, as well as of improving the position of the teachers; but the present state of the parochial colleges seems to admit of much improvement, and the attention of the Minister has been directed to this point.

There are 2,528 masters in the parochial colleges, of whom 165 are ecclesiastics, but the average salary of a master does not exceed 1,200 francs, or 48*l*. Degrees are required from the candidates for the masterships; that of bachelor in letters for the subordinate masterships, and of licentiate in letters or in sciences for the superior chairs of the best parish colleges. The number of pupils is 26,584, of whom—

12,125	are boarders, and
14,459	are day-boys.
<hr/>	
26,584	

Of the day-boys, 12,922 come from their parents' houses, and only 1,537 from institutions and boarding-houses.

There are also 7,082 pupils in elementary branches of knowledge admitted into the parish colleges.

The normal school, for the education of professors, forms an essential part of the secondary system of education in France, and it is described by M. Villemain as belonging to the essence of the French university.

Another kindred institution has been founded for the selection of the best candidates for professorships, and is termed the "Aggregation."

M. Villemain has himself done much in the completion of the Government normal school in Paris, for training professors. Examinations are required on entrance. A three years course of study is established, so as to include a large extent of reading both in literature and science, concluding with special instruction in the particular department of teaching for which each pupil is intended.

The normal school for the professors is connected with the faculties of literature and science in the college of France, and the examinations, the pecuniary advantages, and various inducements to study, preserve the school in good working order. The number of pupils is 96.

Besides those superior schools, there are many "pensions," or private boarding-schools, and "institutions," or day-schools, in which the pupils are instructed in the subjects of the colleges, or at least they receive there the rudiments of a classical education, and the elements of grammar and science.